Figure 1. Synthesis of L-2',3'-dideoxynucleosides and their triphosphates

Keys: X = H or halogen (F, Cl, Br, I); R = NH₂ or OH; (a) NaNO₂, HCl, H₂O; (b) BH₃-SMe₂, THF; (c) DMF, TBDPSCl, imidazole; (d) THF, LiHMDS, TMSCl, PhSeBr; (e) i) DIBALH, toluene; ii) CH₂Cl₂, Pyr., DMAP, Ac₂O; (f) HMDS, (NH₄)₂SO₄, 5-FC, DME, TMSOTf; (g) Et₃B, Bu₃SnH, benzene; (h) THF, TBAF; (i) salicylchlorophosphite, DMF, Pyr., dioxane, (Bu₃NH)₂H₂P₂O₇, Bu₃N, I₂/H₂O/Pyr/THF.

Fig. 2. Dose Response Data for L-ddFC Triphosphate with NS5B

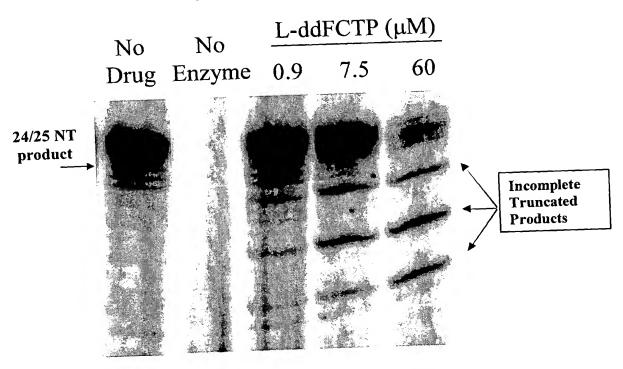


Figure 3. Inhibition of Full-length Product

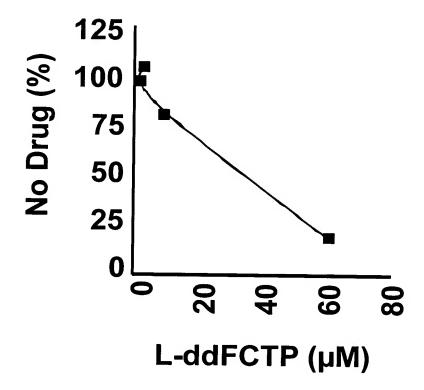


Figure 4. Chain Termination of L-FddC versus D-ddC

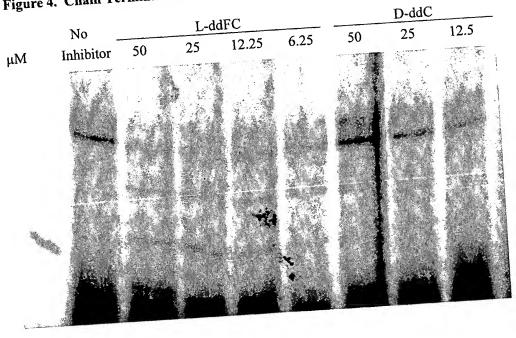
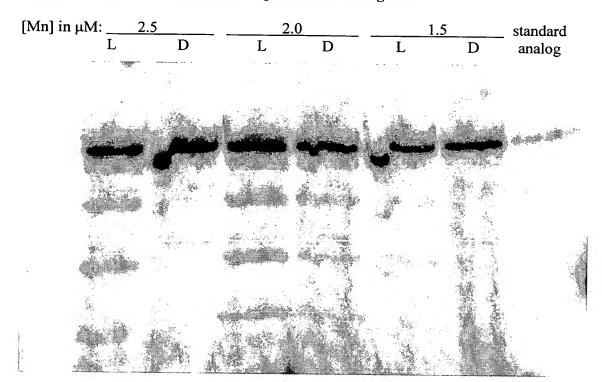


Figure 5. Chain Termination of Dependent on Manganese



L=L-ddFC

D=D-ddC